JOURNAL OF ATMOSPHERIC CHEMISTRY

Volume 49 Nos. 1–3 November 2004

Special Issue
Assessment of Levels and Sources of Trace Element Air Pollution: The Biomonitoring Approach

Guest Editors: Z. Jeran, M.C. Freitas and H. Th. Wolterbeek

Preface 1–2

B. SMODIŠ, M. L. PIGNATA, M. SAIKI, E. CORTÉS, N. BANGFA, B. MARKERT, B. NYARKO, J. ARUNACHALAM, J. GARTY, M.VUTCHKOV, H. Th. WOLTERBEEK, E. STEINNES, M. C. FREITAS, A. LUCACIU and M. FRONTASYEVA / Validation and Application of Plants as Biomonitors of Trace Element Atmospheric Pollution – A Co-Ordinated Effort in 14 Countries 3–13

H. TH. WOLTERBEEK and T. G. VERBURG / A Kriging-based Estimate of the Survey Quality in Biomonitoring of Trace Element Air Pollution 15–22

WINFRIED SCHRÖDER and ROLAND PESCH / Integrative Monitoring Analysis Aiming at the Detection of Spatial and Temporal Trends of Metal Accumulation in Mosses 23–38

GÉRALDINE AMBLARD-GROSS, ARMAND MAUL, JEAN-FRANÇOIS FÉRARD, FRANCINE CARROT and SOPHIE AYRAULT / Spatial Variability of Sampling: Grid Size Impact on Atmospheric Metals and Trace Elements Deposition Mapping with Mosses 39–52

S. AUGUSTO, P. PINHO, C. BRANQUINHO, M. J. PEREIRA, A. SOARES and F. CATARINO / Atmospheric Dioxin and Furan Deposition in Relation to Land-Use and Other Pollutants: A Survey with Lichens 53–65

M. C. FREITAS and A. M. G. PACHECO / Bioaccumulation of Cobalt in *Parmelia sulcata* 67–82

MARCELO ENRIQUE CONTI, MABEL TUDINO, JORGE STRIPEIKIS and GAETANO CECCHETTI / Heavy Metal Accumulation in the Lichen *Evernia prunastri* Transplanted at Urban, Rural and Industrial Sites in Central Italy 83–94

SEBASTIEN LEBLOND, SANDRINE GOMBERT, JEAN LOUIS COLIN, REMI LOSNO and CATHERINE RAUSCH DE TRAUBENBERG / Biological and Temporal Variations of Trace Element Concentrations in the Moss Species *Scleropodium purum* (Hedw.) Limpr. 95–110

ANJA H. TREMPER, M. AGNETA S. BURTON and DAVID E. B. HIGGS / Field and Laboratory Exposures of Two Moss Species to Low Level Metal Pollution 111–120

LUDWIG DE TEMMERMAN and MICHEL HOENIG / Vegetable Crops for Biomonitoring Lead and Cadmium Deposition 121–135

SABINA ROSSINI OLIVA and PASI RAUTIO / Could Ornamental Plants Serve as Passive Biomonitors in Urban Areas? 137–148

ELENA GOTTARDINI, FABIANA CRISTOFOLINI, ELENA PAOLETTI, PAOLO LAZZERI and GIANCARLO PEPPONI / Pollen Viability for Air Pollution Bio-Monitoring 149–159

A. MACHADO, M. C. FREITAS and A. M. G. PACHECO / Relative Response of Biological and Non-Biological Monitors in a Coastal Environment 161–173

B. POKORNY, A. GLINŠEK and C. RIBARIČ-LASNIK / Roe Deer Antlers as a Historical Bioindicator of Lead Pollution in the Šalek Valley, Slovenia 175–189

G. TABORS, G. BRŪMELIS, L. LAPINA, G. POSPELOVA and O. NIKODEMUS / Changes in Element Concentrations in Moss Segments After Cross-Transplanting Between a Polluted and Non-Polluted Site 191–197

SUSANA CALVELO and SANDRA LIBERATORE / Applicability of In Situ or Transplanted Lichens for Assessment of Atmospheric Pollution in Patagonia, Argentina 199–210

A. P. MARQUES, M. C. FREITAS, M. A. REIS, H. TH. WOLTERBEEK, T. VERBURG and J. J. M. DE GOEIJ / Lichen-Transplant Biomonitoring in the Assessment of Dispersion of Atmospheric Trace-Element Pollutants: Effects of Orientation Towards the Wind Direction 211–222

POLIČNIK HELENA, BATIČ FRANC and RIBARIČ LASNIK CVETKA / Monitoring of Short-Term Heavy Metal Deposition by Accumulation in Epiphytic Lichens (*Hypogymnia Physodes* (L.) Nyl.) 223–230

B. J. VIEIRA, M. C. FREITAS, A. F. RODRIGUES, A. M. G. PACHECO, P. M. SOARES and N. CORREIA / Element-Enrichment Factors in Lichens from Terceira, Santa Maria and Madeira Islands (Azores and Madeira Archipelagoes) 231–249

JACOB GARTY, LIOR WEISSMAN, TAL LEVIN, RACHEL GARTY-SPITZ and HAYA LEHR / Impact of UV-B, Heat and Chemicals on Ethylene-Production of Lichens 251–266

JACOB GARTY, TAL LEVIN, HAYA LEHR, SHARON TOMER and AYALA HOCHMAN / Interactive Effects of UV-B Radiation and Chemical Contamination on Physiological Parameters in the Lichen *Ramalina lacera* 267–289

S. ROSSINI OLIVA and M. D. MINGORANCE / Study of the Impact of Industrial Emission on the Vegetation Grown Around Huelva (South of Spain) City 291–302

S. A. PIRINTSOS, K. KOTZABASIS and S. LOPPI / Polyamine Production in Lichens Under Metal Pollution Stress 303–315

M. V. BALARAMA KRISHNA, D. KARUNASAGAR and J. ARUNACHALAM / Sorption Characteristics of Inorganic, Methyl and Elemental Mercury on Lichens and Mosses: Implication in Biogeochemical Cycling of Mercury 317–328

OLIVIER DAILLANT, DAVID BOILLEY, MARTIN GERZABEK, JUSTIN PORSTENDÖRFER and ROLAND TESCH / Metabolised Tritium and Radiocarbon in Lichens and Their Use as Biomonitors 329–341

M. M. FARINHA, Z. ŠLEJKOVEC, J. T. VAN ELTEREN, H. Th. WOLTERBEEK and M. C. FREITAS / Arsenic Speciation in Lichens and in Coarse and Fine Airborne Particulate Matter by HPLC–UV–HG–AFS 343–353

R. M. GODINHO, M. C. FREITAS and H. TH. WOLTERBEEK / Assessment of Lichen Vitality During a Transplantation Experiment to a Polluted Site 355–361

ERIKA GLASENČNIK, CVETKA RIBARIČ-LASNIK, KARIN SAVINEK, META ZALUBERŠEK, MARIA MUELLER and FRANC BATIČ / Impact of Air Pollution on Genetic Material of Shallot (*Allium cepa* L. var. *ascalonicum*) Exposed at Differently Polluted Sites in Slovenia 363–376

P. PINHO, S. AUGUSTO, C. BRANQUINHO, A. BIO, M. J. PEREIRA, A. SOARES and F. CATARINO / Mapping Lichen Diversity as a First Step for Air Quality Assessment 377–389

D. CUNY, L. DAVRANCHE, P. THOMAS, M. KEMPA and C. VAN HALUWYN / Spatial and Temporal Variations of Trace Element Contents in *Xanthoria Parietina* Thalli Collected in a Highly Industrialized Area in Northern France as an Element for a Future Epidemiological Study 391–401

M. Â. B. C. MENEZES, C. V. S. SABINO, M. B. FRANCO, E. C. P. MAIA and C. C. B. ALBINATI / Assessment of Workers' Contamination Caused by Air Pollution Exposure in Industry Using Biomonitors 403–414

T. MARTINEZ, J. LARTIGUE, F. JUAREZ, P. AVILA-PEREZ, G. ZARAZUA, C. MARQUEZ, M. P. ORTA and V. ALVAREZ / Application of Lead Isotopic Ratios in Atmospheric Pollution Studies in the Valley of Mexico 415–424

HARRY HARMENS, ALAN BUSE, PATRICK BÜKER, DAVID NORRIS, GINA MILLS, BRONWEN WILLIAMS, BRIAN REYNOLDS, TREVOR W. ASHENDEN, ÅKE RÜHLING and EILIV STEINNES / Heavy Metal Concentrations in European Mosses: 2000/2001 Survey 425–436

S. LOPPI, L. A. DI LELLA, L. FRATI, G. PROTANO, S. A. PIRINTSOS and F. RICCOBONO / Lichens as Biomonitors of Depleted Uranium in Kosovo 437–445

S. ROSAMILIA, S. GAUDINO, U. SANSONE, M. BELLI, Z. JERAN, S. RUISI and L. ZUCCONI / Uranium Isotopes, Metals and Other Elements in Lichens and Tree Barks Collected in Bosnia–Herzegovina 447–460

HARALD G. ZECHMEISTER, ALARICH RISS and ANDREA HANUS-ILLNAR / Biomonitoring of Atmospheric Heavy Metal Deposition by Mosses in the Vicinity of Industrial Sites 461–477

S. GOMBERT, C. RAUSCH DE TRAUBENBERG, R. LOSNO, S. LEBLOND, J. L. COLIN and D. COSSA / Biomonitoring of Element Deposition Using Mosses in the 2000 French Survey: Identifying Sources and Spatial Trends 479–502

IVAN SUCHARA and JULIE SUCHAROVÁ / Current Atmospheric Deposition Loads and Their Trends in the Czech Republic Determined by Mapping the Distribution of Moss Element Contents 503–519

O. NIKODEMUS, G. BRŪMELIS, G. TABORS, L. LAPIŅA and S. POPE / Monitoring of Air Pollution in Latvia Between 1990 and 2000 Using Moss 521–531

A. LUCACIU, L. TIMOFTE, O. CULICOV, M. V. FRONTASYEVA, C. OPREA, S. CUCU-MAN, R. MOCANU and E. STEINNES / Atmospheric Deposition of Trace Elements in Romania Studied by the Moss Biomonitoring Technique 533–548

E. V. ERMAKOVA, M. V. FRONTASYEVA, S. S. PAVLOV, E. A. POVTOREIKO, E. STEINNES and YE N. CHEREMISINA / Air Pollution Studies in Central Russia (Tver and Yaroslavl Regions) Using the Moss Biomonitoring Technique and Neutron Activation Analysis 549–561

S. LIIV and M. KAASIK / Trace Metals in Mosses in the Estonian Oil Shale Processing Region 563–578

ELVIS J. DE FRANÇA, ELISABETE A. DE NADAI FERNADES, MÁRCIO A. BACCHI and MITIKO SAIKI / Native Trees as Biomonitors of Chemical Elements in the Biodiversity Conservation of the Atlantic Forest 579–592

T. NASZRADI, A. BADACSONYI, N. NÉMETH, Z. TUBA and F. BATIČ / Zinc, Lead and Cadmium Content in Meadow Plants and Mosses Along the M3 Motorway (Hungary) 593–603

Electronic journals at
KluwerOnline
WWW.KLUWERONLINE.NL
Contact your librarian for more information